



INDIANA DEPARTMENT OF TRANSPORTATION  
100 North Senate Avenue  
Room N758  
Indianapolis, Indiana 46204-2216  
(317) 232-5533 FAX: (317) 232-0238  
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MITCHELL E. DANIELS, JR., Governor  
THOMAS O. SHARP, Commissioner

Writer's Direct Line

March 24, 2006

**MEMORANDUM**  
**06-03**

TO: District Directors  
District Construction Engineers  
Toll Road Operations Engineers  
District Materials & Tests Engineers  
District Area Engineers  
Project Engineers/Supervisors

FROM: Mark A. Miller, Director *Mark A. Miller*  
Division of Construction Management

Subject: Concrete Mix Designs for 2006

The 2006 Standard Specifications require a mix design submittal on a Department provided spreadsheet for concrete produced in accordance with Sections 502.03 and 506.03. A trial batch is required for concrete produced in accordance with 506.05. Concrete mixtures produced for various miscellaneous uses make reference to the 502 or 506 sections. There was no intent to require the mix design submittal and trial batch for these miscellaneous uses.

Therefore, the items listed below will not require submittal of the mix design on the Department's spreadsheet and a trial batch demonstration:

<u>Section</u>	<u>Item</u>	<u>Reference</u>
305.03	New PCC Base	502
305.05	Widening With PCC Base	502
605.01	Curbing	502
610.02	Approaches and Crossovers	502
715.12	Pavement Replacement	502
801.11	Temporary Crossovers	502
805.08	Controller Cabinet, Signal Service, & Detector Housing Installation	506

Any concrete used for the above items that is placed monolithically with a 501 or 502 designed mix, such as concrete curbing placed with pavement, would be controlled by the approved mix design.

In addition, some contracts require small quantities of concrete for partial depth patching produced in accordance with section 506. For contracts where the total quantity of concrete required for partial depth patching is less than 10 square yards (8 square meters), the requirement for a trial batch and mix design submittal on the Department's spreadsheet may be waived.

All concrete supplied to Department projects must be delivered with a ticket that contains the following information:

- a. CMD number (if applicable)
- b. Actual batch weights
- c. List of components
- d. Time of batch
- e. Plant number
- f. Volume delivered.

A special provision, 500-R-515, will be placed in contracts to accommodate these changes. For those contracts already let, the attached special provision will be incorporated by executing a no cost change order.

MAM:sec

attachment

## CONCRETE MIX DESIGNS

The Standard Specifications are revised as follows:

SECTION 305, BEGIN LINE 19, INSERT AS FOLLOWS:

**305.03 New PCC Base**

Construction of new PCC bases shall be in accordance with 502, except for 502.03, 502.14 and 502.20. The surface shall be finished with wet burlap or by wood floats. Smoothness of the base will be controlled with a 16 ft (4.9 m) long straightedge longitudinally and a 10 ft (3 m) long straightedge transversely.

SECTION 305, BEGIN LINE 119, INSERT AS FOLLOWS:

Materials and construction requirements shall be in accordance with the applicable requirements of 502, except 502.03 and the following.

SECTION 506, AFTER LINE 50, INSERT AS FOLLOWS:

*A concrete mix design and a trial batch will not be required where the quantity for partial depth patching is less than 10 square yards (8 square meters) per contract.*

SECTION 605, BEGIN LNE 61, DELETE AND INSERT AS FOLLOWS:

**(c) Proportioning and Placing**

Concrete shall be proportioned, mixed, and placed in accordance with 502, *except 502.03 will not apply*. Where integral curb and gutter is specified, that portion of the curb below the upper surface elevation of the adjoining pavement shall be constructed by extending the pavement to the outer vertical plane of the curb at the time the pavement is placed. The concrete used in this extension shall be the same composition as that of the pavement.

SECTION 610, AFTER LINE 20, INSERT AS FOLLOWS:

*A concrete mix design in accordance with 502.03 will not be required.*

SECTION 715, BEGIN LINE 362, INSERT AS FOLLOWS:

The pavement replacement areas in Portland Cement Concrete pavements shall be filled with PCCP in accordance with 502 *except 502.03 will not apply*.

SECTION 801 BEGIN LINE 500, INSERT AS FOLLOWS:

Temporary crossovers shall be either type A or type B as shown on the plans and shall be constructed in accordance with the applicable sections of 207, 402 or 502. *The requirements of 502.03 will not apply*. When required to maintain median drainage, a 15 in. (375 mm) diameter pipe shall be placed at the centerline of the median under the crossover. If the crossover is to remain in place for future construction, the pipe shall have appropriate grated box ends in accordance with 715.

SECTION 805, BEGIN LINE 252, INSERT AS FOLLOWS:

A minimum of 12 in. (300 mm) and a maximum of 18 in. (450 mm) of loop wire duct will be permitted in the detector housing for each loop lead. Concrete used in the installation of detector housings shall be in accordance with 506, except where a portion of the road is closed or where there is no vehicular traffic, then class A concrete in accordance with 702 may be used. *The requirements of 506.03 and 506.05 will not apply*. The concrete shall be placed flush with existing surface and shall be covered with a steel plate during the setting time.

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